ABSTRACT OF THE DISCLOSURE

A numerical controller capable of quickly sending/receiving data of a machining program to/from a storage device or medium and quickly editing the data of the machining program. The machining program is divided into a plurality of program blocks and additional information is added to each of the program blocks to be associated therewith to form input/output units. additional information includes front and rear link data designating input/output units immediately preceding and following each input/output unit, respectively, in a sequence of the machining program, and data of an effective character length of the program block. In executing the machining program while reading the machining program stored in the storage device or medium, the input/output units are successively read and executed according to the front/rear link data. When a branch instruction is included in the program block in execution, an input/output unit including a line of label designated by the branch instruction is searched using the front/rear link data, or is read according to data for specifying such input/output unit prepared to be associated with the branch instruction in advance. In editing the machining program, only the input/output units to be edited are read from the storage device or medium and edited.